

Quarterly Report  
July-September, 1992

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Contract Number: NAS5-31365

General Points

During the last four months, progress has been made on algorithm development for the different products that the PI is associated with. As the land group discipline leader the PI has attended some of the weekly technical team meetings but has missed several due to other commitments. As for the last year emphasis in the project has been given to the development of the procedures for atmospheric correction providing the liaison between the land and atmospheres group. The justification for this has been that Didier Tanre (Foreign Investigator) is unable to devote time to this activity. Eric Vermote is acting as the liaison person between the land and atmospheres group. In addition Mark Heinecke has been employed to pursue the issue of transferring data from EDC. Administration- We have not been able to take advantage of the government rates notice that was sent by the project to the team members. For example Omega at GSFC will only provide government rates when supported by Government Travel orders,

Specific Product Activities

Atmospheric Correction Product- Development of Radiative Code: Didier Tanre (University of Lille) visited our project at the end of July and good progress was made on the 6S Code, especially regarding the accuracy of the computation. A journal article on the Code is in preparation.

- Aerosol Correction: An operational system for the correction of AVHRR-NDVI data for the effect of stratospheric aerosols has been developed and is in the testing phase. A paper will be submitted soon.

- Aerosol Retrieval: The progress made in the implementation of a system for retrieval of aerosol over land and sea was presented at the IRS meeting (Estonia). A paper will be published in the proceedings of the conference.

- Sun photometer activity: work was devoted to the definition and testing of an automatic sun photometer (Holben et al, IGARS'92) and completed in time, for a measurement campaign in Brazil this summer. A large number of measurements were taken and a first assessment of the results appears promising. An instrument has also been located at Goddard and measurements are being taken on a semi-regular basis. Work is continuing to improve these instruments.

The development of the instruments and the development of an instrument network are essential to the validation of the techniques being developed for Modis atmospheric correction.

Calibration of AVHRR data: the method presented at IGARS'92 (Houston) for calibrating the visible channel of AVHRR has been applied to a one year of NOAA- 9 data (1988). Sensor degradation has been followed during one full year. Results are very encouraging and analysis will be extended for the full NOAA- 9 lifetime.

Instrument Descope: time was spent in September addressing the problems associated with the current round of descopes and trying to develop a consensus from the three discipline groups.

Land Cover - the group was represented at the MODLAND Land Cover Thematic Product meeting in Montana and presented the present status of the collaborative research effort with John Townshend (UMd).

Fire Product - the project has been involved in a electronic transfer test of AVHRR data from the EDC DAAC to provide 1km data for the purpose of testing the AVHRR fire detection algorithm. A fire - algorithm workshop is planned for February 92 in conjunction with IGBP-DIS. The Modis Fire algorithm approach will be presented at that meeting. A field project was undertaken in Southern Africa associated with the NASA SAFARI - TRACE- A Mission which will help validate the current AVHRR methodology and was useful for identifying future collaborators.

MODIS Test Sites - additional MSS scenes were acquired from the EDC FY 91 support budget for selected land cover test sites following recommendations from the Montana meeting. Also TM scenes ordered for MODIS by the NASA- EOSAT data grant were acquired and sent to EDC and will be distributed to the group as part of the FY 91 support. Effort is now underway to identify the most suitable format for distribution to Modland.